

## ABSTRACT

An apparatus and method for stabilizing pulse light intensity from a pulse light for semiconductor manufacturing process metrology system is disclosed. The apparatus and method are directed to a stabilized pulse light drive circuit including a pulse light positioned so as to direct light into a process reactor of a semiconductor wafer manufacturing system. A light detector detects light in the process reactor emitted from the pulse light and generates a signal representing the light intensity in the reactor chamber. The light intensity is integrated and compared with a desired preset intensity level. When the comparison yields a substantially equal result, power to the pulse light is shut off, thereby ensuring a substantially constant light intensity in the process reactor.